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MAR - 9 2005
(6110)

23. (New) A method for coupling a oligosaccharide comprising a phosphorylated hexose to a lysosomal enzyme, the method comprising the steps of:

- (a) derivatizing the oligosaccharide comprising a phosphorylated hexose with a compound containing a carbonyl-reactive group;
- (b) oxidizing the lysosomal enzyme to generate at least one carbonyl group on the lysosomal enzyme; and
- (c) reacting the derivatized oligosaccharide with the oxidized lysosomal enzyme,

thereby coupling the oligosaccharide to the lysosomal enzyme.

35. (New) The method according to claim 23, wherein the derivatized oligosaccharide has a formula chosen from $6\text{-P-M}_n\text{-R}$ and $(6\text{-P-M}_x)_m\text{L}_n\text{-R}$,

wherein M is mannose or a mannopyranosyl group,

P is a phosphate group linked to the C-6 position of M,

L is a hexose,

R is a compound containing at least one carbonyl-reactive group,

m is an integer ranging from 2 to 3,

n is an integer ranging from 1 to 15, wherein if $n > 1$, the M_n are linked to one another by alpha (1,2), alpha (1,3), alpha (1,4), or alpha (1, 6), and

x is an integer ranging from 1 to 15.